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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,565	10/30/2003	Henry Dombroski	2421.003	1578

21917 7590 05/25/2005

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EXAMINER	
BELLINGER, JASON R	
ART UNIT	**PAPER NUMBER**
3617	

DATE MAILED: 05/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/699,565	DOMBROSKI ET AL.	
	Examiner	Art Unit	
	Jason R Bellinger	3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 March 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7 and 9-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7 and 9-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1-3, 7, and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allsop. Figure 1 of Allsop shows a pressurized wheel hub 100 including bearings (101A & 101B) that are rotatably securable to an axle 103, and a seal 111 mounted between the hub 100 and axle 103.

In Figures 4-5, Allsop shows a hubcap 400 for the insertion of pressurized air into a conventional wheel hub having a housing 403 adapted for attachment to an outer end of the wheel hub to provide an airtight sealing arrangement. This forms a closed air space in the interior of the wheel hub 100 between the seal 111 and sealed hubcap 400 around the bearings (101A & 101B). The hubcap 400 forms an annular pneumatic chamber that is coaxially disposed on the axle 103.

The hubcap 400 includes a valve 401 for insertion of pressurized air into the closed air space. This valve 401 includes an inlet 501 for fluidly coupling to a pressurized air source, and an outlet coupled to the closed air space. Allsop does not specify that the pressurized air source maintains the air within the sealed chamber be between 1 and 30 psi. However, one of ordinary skill in the art at the time of the invention would find it obvious to pressurize the air in the sealed chamber to a sufficient pressure to allow the chamber to remain airtight, while still allowing any lubricants within

the chamber to remain viscous. Furthermore, once the closed air space is pressurized, the valve 401 would act to maintain the pressure therein.

Allsop sets forth a means for measuring the amount of pressurized air within the closed air space. This means is a pressure gauge to provide visual indication of the pressurized air (see page 3, paragraph 0036, lines 8-12), whereby a breached seal condition within the wheel hub can be detected. The pressure gauge is fluidly coupled to the closed air space.

Allsop does not specify the type of air source utilized. However, it is well known in the art to use air compressors to provide a source of pressurized air to a sealed chamber. Furthermore, it is well known in the art that air compressors provided on a vehicle body may be powered by a DC energy source already on the vehicle (such as a battery, etc). It is further well known in the art to provide the air compressor on any type of vehicle, be it a trailer or a towing vehicle.

Referring back to Figure 1, Allsop shows the use of a sleeve 112 securable to the axle 103 and operatively associated with a seal 111. This sleeve 112 of Allsop is not disclosed as being a polished sleeve having a machined surface to permit enhanced sealing. However, it is well known in the art that sleeves to be used in conjunction with a seal member require a sufficiently smooth, or machined surface, that is free of burrs or other imperfections in order to properly form an airtight seal with the seal member. Any burrs or imperfections present on the surface of the sleeve would not only prevent the seal member from seating properly against the surface of the sleeve (thus allowing the seal assembly to leak), but could also cause undue damage to the seal member

during installation (thus possibly causing premature failure during use). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the sleeve 112 of Allsop with a polished machined surface in order to prevent undue damage on the seal member 111, to prevent premature failure of the seal during use.

3. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allsop as applied to claims 1-3, 7, and 9-12 above, and further in view of Hunt et al.

Allsop does not specify the structure of the pressure gauge. Hunt et al teaches the use of a pressure gauge 40 includes a dial face 106 and pressure-indicating needle 104 moving relative to the dial face 106 in direct relation to the air pressure within the closed system. Therefore from this teaching, it would have been obvious to provide the pressure gauge of Allsop with the structure as taught by Hunt et al for the purpose of providing a simple and easy way of determining the air pressure within the closed space.

Terminal Disclaimer

4. The terminal disclaimer filed on 14 March 2005 is currently under review. Approval or disapproval of the terminal disclaimer will follow in the next office action.

Response to Arguments

5. Applicant's arguments with respect to claims 1-5, 7, and 9-12 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason R Bellinger whose telephone number is 703-308-6298. The examiner can normally be reached on Mon - Thurs (9:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Morano can be reached on 703-308-0230. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason R Bellinger
Examiner
Art Unit 3617

JASON R. BELLINGER
PATENT EXAMINER

jrb 5/23/05